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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------------------------------------------------------|-------------|----------------------|---------------------|------------------|
| 10/716,419 | 11/20/2003 | Kouichi Takagi | 117815 | 6550 |
| 25944 | 7590 | 11/01/2006 | EXAMINER | |
| OLIFF & BERRIDGE, PLC P.O. BOX 19928 ALEXANDRIA, VA 22320 | | | CAVALLARI, DANIEL J | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2836 | |

DATE MAILED: 11/01/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|---------------------|---------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 10/716,419 | TAKAGI ET AL. | |
| | Examiner | Art Unit | |
| | Daniel J. Cavallari | 2836 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 8/10/2006.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2 and 4-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2 and 4-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 April 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

The examiner acknowledges a submission of the amendment filed on 8/10/2006. The replacement figures, amendments to claims 1-2, 4, & 6, cancellation of claim 3 and new claim 7 are accepted.

Although the Figures 17 and 18 have been properly marked as "Prior Art", the applicant has failed to mark all those drawings which are prior art as stated in the background section of the specification (See Specification, Pages 1-9) in which other figures such as 11, 13, 14 (Page 2), figure 15 (page 3), figure 16 (page 4) are identified as prior art and should be labeled as such.

The examiner thanks the applicant for pointing out that 35 U.S.C 102(b) was mistakenly written instead of 35 U.S.C 102(e) in view of the European Patent 1220593 A2. The reference used in the previous rejection (US 6,914,765) was taken to be an English equivalent of the European Patent EP 1220593 A2 which has been included with this office action.

Response to Arguments

Applicant's arguments filed 8/10/2006 have been fully considered but they are not persuasive.

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In response to Claim 1

The applicant argues that the limitation of "...each of the relay elements to be installed in the installation socket are configured to have the same outer shape and outer dimensions" is not taught by Nakamura. However, the examiner points out that it has been held that an element "configured to" perform a function is not a positive limitation but only requires the ability to so perform. It does not constitute a limitation in any patentable sense. *In re Hutchinson*, 69 USPQ 138.

Furthermore, it is noted that Nakamura teaches the two relay units (22 & 23) (See Figure 1) having the same outer shape (that being a rectangular shape) and the same outer dimensions as noted by the applicant the height and width are the same for the two units thereby meeting the claim limitation which does not specify that all the outer dimensions are the same.

The examiner also points out that the two units (22 & 23) of Figure 1 are merely used as examples in which either one of another unit (22 or 23) could be alternatively used or another unit (either 22 or 23) could be added to the third slot (See Figure 1 & Paragraph 29) or the same unit with the exact same dimensions is interchangeable with slots thereby meeting the claim limitation of two relay elements comprising of all outer dimensions being the same for the two units.

Drawings

The drawings are objected to for the following reasons:

Those Figures representative of prior art should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g).

Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

Claim 7 is objected to because of the following informalities:

Claim 7 recites the limitation "the installation sockets" however only one socket has been previously disclosed. There is insufficient antecedent basis for this limitation in the claim. The claim will be examined as best understood to mean "installation socket".

Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, 5; 6 & 7 are rejected under 35 U.S.C. 102(b) as being anticipated by Nakamura (US 2004/0169993 A1).

In regard to Claim 1, 2, & 5

Nakamura teaches:

- A plurality of terminals, read on by terminals connecting the switch unit to the battery (BATT) and alternator (ALT) via a wiring (31) (See Figures 1 & 3B and Paragraphs 37, 40, & 41).
- A plurality of installation sockets (39) configured to connect the relay element (22) (See Figure 1 & Paragraph 29) also shown as relay cavities (4) (See Figure 12 & Paragraph 2).
- Wherein the installation socket is configured to have different relay elements installed as shown in Figure 1, in which the relays are changeable. Figure 4B further shows different relays designed and used for different components of the car (i.e. Horn, Headlamp (H/LP), ,and Fan).

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- Each of the relay elements having the same outer rectangular shape and all of the same outer dimensions as is the case when two of the same relay elements (22 or 23) are use (See Figure 1 & Paragraph 29).

In regard to Claim 6

- A semiconductor module having a case (21) provided with the installation socket (39).

In regard to Claim 7

- The socket being only configures to install a relay element (as is the case with the unit (47) of figure 5 (See Paragraph 50).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over

Nakamura & Metlitzky et al. (US 2004/0080214 A1).

Nakamura teaches "the relay functions and the fuse functions by semi-conductor groups however it is unclear whether this encompasses a semiconductor relay. Figure 7 shows the use of a mechanical relay.

Metlitzky et al. (hereinafter referred to as Metlitzky) teaches a vehicle control unit incorporating a semiconductor relay (See Paragraph 3).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the semiconductor relay as taught by Metlitzky in place of the mechanical relay of Nakamura. The motivation would have been to reduce the size and weight of the device.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel J. Cavallari whose telephone number is (571)272-8541. The examiner can normally be reached on Monday-Friday 8:30-5:00.

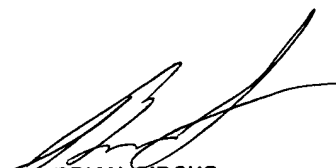
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Sircus can be reached on (571)272-2800 x36. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Daniel Cavallari

October 20, 2006



BRIAN SIRCUS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800